

WHAT IS CLAIMED IS:

1. A punching apparatus for punching holes in an article, comprising:
a main body for receiving therein said article and exerting a punching force on
said article to punch holes;
a sustaining structure for transmitting a depressing force to said main body by
depressing said main body to provide said punching force in response to an
external force; and
a non-linear levering rod comprising a force-receiving portion for being
applied thereonto said external force, a pivot portion coupled to said main body
for allowing said levering rod to pivot relative to said main body in response to
said external force, a bent portion connected to said force-receiving portion and
said pivot portion for keeping said force-receiving portion at a substantially
horizontal level in a rest state, said non-linear levering rod being coupled to said
sustaining structure for transmitting said sustaining structure to depress said
main body while moving in response to said external force.
2. The punching apparatus according to claim 1 wherein said non-linear rod
further includes a depressing-force exerting portion disposed between said pivot
portion and said bent portion and coupled to said sustaining structure for
transmitting said sustaining structure to move.
3. The punching apparatus according to claim 1 wherein said bent portion has a
distance from said force-receiving portion farther than from said pivot portion.
4. The punching apparatus according to claim 1 wherein said sustaining
structure rests on said main body when no external force is exerted on said
force-receiving portion.
5. The punching apparatus according to claim 1 wherein said bent portion has
an angle from 135 to 170 degrees.

6. The punching apparatus according to claim 1 wherein said bent portion has an angle from 145 to 160 degrees.
7. The punching apparatus according to claim 1 wherein said sustaining structure is a roller coupled to said non-linear levering rod.
8. The punching apparatus according to claim 1 wherein said article is a stack of paper sheets.
9. A punching apparatus for punching holes in an article, comprising:
 - a main body for receiving therein said article and exerting a punching force on said article to punch holes;
 - a non-linear levering rod comprising a force-receiving portion for being applied thereonto said external force, a pivot portion coupled to said main body for allowing said levering rod to pivot relative to said main body in response to said external force, a bent portion connected to said force-receiving portion and said pivot portion; and
 - a roller bearing rotatably interfaced between said non-linear levering rod and said main body for depressing said main body in response to said external force.
10. The punching apparatus according to claim 9 wherein said non-linear rod further includes a depressing-force exerting portion disposed between said pivot portion and said bent portion and coupled to said roller bearing for transmitting said roller bearing to move.
11. The punching apparatus according to claim 9 wherein said bent portion has a distance from said force-receiving portion farther than from said pivot portion.
12. The punching apparatus according to claim 9 wherein said roller bearing rests on said main body when no external force is exerted on said force-receiving portion.
13. The punching apparatus according to claim 9 wherein said bent portion has

an angle from 135 to 170 degrees.

14. The punching apparatus according to claim 9 wherein said bent portion has an angle from 145 to 160 degrees.

15. The punching apparatus according to claim 9 wherein said roller bearing is rotatably attached to said non-linear levering rod.

16. A punching apparatus for punching holes in an article, comprising:

a main body for receiving therein said article and exerting a punching force on said article to punch holes;

a sustaining structure for transmitting a depressing force to said main body by depressing said main body to provide said punching force in response to an external force; and

a non-linear levering rod comprising a force-receiving portion for being applied thereonto said external force, a pivot portion coupled to said main body for allowing said levering rod to pivot relative to said main body in response to said external force, a bent portion connected to said force-receiving portion and said pivot portion for keeping said force-receiving portion at a substantially horizontal level in a rest state, a depressing-force exerting portion disposed between said pivot portion and said bent portion and coupled to said sustaining structure for transmitting said sustaining structure to move, said non-linear levering rod transmitting said sustaining structure to depress said main body while moving in response to said external force.

17. The punching apparatus according to claim 16 wherein said bent portion has a distance from said force-receiving portion farther than from said pivot portion.

18. The punching apparatus according to claim 16 wherein said sustaining structure rests on said main body when no external force is exerted on said

force-receiving portion.

19. The punching apparatus according to claim 16 wherein said sustaining structure is a roller coupled to said non-linear levering rod.